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AUTHOR	Newman, Sally; Engel, Rafael; Ward, Christopher; Karip, Emin; Faux, Robert
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ABSTRACT

The work-related and personal factors associated with the willingness and ability of older adults to remain as child care workers and the factors associated with leaving child care work were studied in a time-series design. Subjects were 534 persons aged 50 years and older who were working for pay as child care providers. Of these, 341 replied to an initial questionnaire in October 1992, and 282 responded to a second in May 1993. Only 10% left paid child-care employment between the questionnaires. Nearly a third mentioned health problems as their reason for leaving, and a variety of other problems were mentioned. Those who remained employed and those who left were not significantly different by race, marital status, living arrangement, or level of education. Those who left were more likely to be older and to have been working for fewer years in the field. Pay, perceptions of fairness and opportunity, work satisfaction, and relationships with younger workers were related to older adults remaining in child care work. Older persons who continued working had higher levels of caregiving responsibility than did those who left child care work, but were less likely to have had formal preservice training than those who left. (Contains 18 tables and 29 references.) (SLD)

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University of Pittsburgh

University Center for Social and Urban Research
Generations Together: An Intergenerational Studies Program

121 University Place, Suite 300
Pittsburgh, Pennsylvania 15260-5907
412-648-7150
Fax: 412-624-4810

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A TIME SERIES STUDY OF FACTORS ASSOCIATED WITH RETENTION AND ATTRITION OF OLDER ADULT CHILD-CARE WORKERS

Final Report to the
AARP-Andrus Foundation
April 1994

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Sally Newman, Ph.D.
Principal Investigator

Rafael Engel, Ph.D.
Co-Principal Investigator

Christopher Ward, Ph.D.
Researcher

Emin Karip
Researcher

Robert Faux
Researcher

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"A Time Series Study of Factors Associated with Retention and Attrition of Older Adult Child-Care Workers"

Generations Together
University of Pittsburgh

Sally Newman, PhD
Principal Investigator

Rafael Engel, PhD
Co-Principal Investigator

Christopher Ward, PhD
Researcher

Emin Karip
Researcher

Robert Faux
Reseracher

121 University Place, Suite 300
University of Pittsburgh
Pittsburgh, PA 15260
412/648-7150

April, 1994

"A Time Series Study of the Factors Associated with Retention and Attrition of Older Adult Child-Care Workers"

ABSTRACT

Despite both the importance of child care and the potential availability of older adult child-care workers, there have been no studies on the retention of older adults in child care. Therefore, this research explored the following questions:

(1) What work-related and personal factors are associated with the willingness and ability of older adults to remain as child-care workers? and

(2) What factors are associated with older persons leaving child-care work?

A. Research Design

The project used a time-series design. Subjects completed mailed questionnaires at two time points. Follow-up telephone calls and second mailings were made to non-respondents to increase the response rate.

B. Research Subjects

The subjects were 534 persons 50 years of age and older who were working for pay in child care as direct-care providers (aides, assistant teachers, teachers, and directors).

C. Variables

The primary dependent variable was whether subjects remained employed in child care or left child care employment. The study involved three sets of independent variables:

(1) Demographic variables including age, gender, race, education, and income.
(2) Conditions of employment variables including wages, benefits, working conditions, transportation, perceived status of child care work, and length of employment.
(3) Personal-life change variables which might influence the decision to work in child care.

D. Instruments

The team used two project-designed instruments. An initial questionnaire collected information related to the independent variables. A two-version ("working" and "not working") follow-up questionnaire collected similar information, but in the context of each respondent's working or not working status.

E. Data Collection

Initial questionnaires were mailed to the 534 subjects between October, 1992, and May, 1993. In all, 341 persons returned the

questionnaire. In October, 1993, the project team mailed 341 color-coded "working" and "not working" versions of the follow-up questionnaire; 282 responded.

F. Results

(1) Older adults' rates of attrition from child care work

Only 10 percent of the respondents (28 of 282) left paid child-care employment subsequent to the initial questionnaire. Those who left gave a variety of reasons; nearly a third (eight) mentioned health problems.

(2) Demographic variables that describe persons likely to be employed or leaving child care

Those who remained employed and those who left were not significantly different by race, marital status, living arrangement, or level of education. There were statistically significant differences for age and for the years employed in child care. Persons employed had an average age of 60, while those no longer working had an average age of 62. Persons employed had worked in child care for 12.2 years while those who stopped work averaged only 7.6 years of employment.

(3) The work place variables associated with the retention/ attrition of older workers in child care jobs

Pay and Benefits -- There was a statistically significant difference between those who remained working and those who left work in the amount of pay reported at the first time point. Persons who continued working received an average of $6.73, while persons who would eventually stop working received only $5.46. Similarly, there was a statistically significant difference in last reported hourly wages. For persons leaving work, the final wage averaged $5.22, while for persons remaining, the average was $7.14.

There were no statistically significant differences at Time 1 in the number of major benefits or minor benefits reported being received by those who remained working and by those who were no longer working.

Work Environment -- Working respondents reported a higher level of work satisfaction at Time 1 (3.75 on a five-point scale) than respondents no longer working (3.37). The difference in means is statistically significant. Second, there was a statistically significant difference in perceptions about opportunities for promotion and advancement or fairness of pay between the two groups. Persons working reported a higher level (2.73) for advancement and pay equity than persons no longer working (2.48).

On the other hand, there was not a statistically significant difference between the two groups about personal satisfaction derived from child-care employment.

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Persons who continued to work were more satisfied with their relationships with younger co-workers (4.00) than persons no longer working (3.57). Neither group had difficulty with transportation and had easy access to their work sites.

(4) Personal and individual variables associated with the retention of older workers in child care

Older persons who continued working had significantly higher levels of caregiving responsibilities than did those who left child-care work. There was no statistically significant difference between those who remained employed and those who left by physical health status.

(5) The effect of training variables on job retention

There was a statistically significant difference by pre-service formal training in child care between those who continued to work and those who left work. Of those persons who continued to work, 45.3 percent had formal, pre-service training; of those who left work, 61.5 percent had such training.

"A Time Series Study of the Factors Associated with Retention and Attrition of Older Adult Child-Care Workers"

SUMMARY

This study sought to learn why some older adults remain working in child care and why others leave child-care work. 341 older adults working in child care responded to an initial questionnaire. Six to 12 months later they were asked to fill out a "working" or "not working" questionnaire, depending on whether they were still working in child care or had left employment. The results:

- **During the course of approximately one year, few older adults working in child care left child-care employment.**

Only 10 percent of those responding to the initial questionnaire left paid child care employment during the study. Those who left gave a variety of reasons; nearly a third mentioned health problems.

- **The persons who left child care work were more likely to be older and had been working for fewer years in the field.**

Persons who continued to work had an average age of 60; those who left work had an average age of 62. Persons who continued to work had been employed in child care for an average of 12.2 years. Those who stopped work averaged only 7.6 years of employment.

Race, marital status, living arrangement, or level of education of the older workers did not appear to be related to whether they continued to work or left work in child care.

- **Pay, perceptions of fairness and opportunity, work satisfaction, and relationships with younger workers were related to older adults remaining in child care work.**

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Persons who continued working reported earning an average of $6.73 per hour, while persons who stopped working received only $5.46 per hour. Persons who continued to work also reported higher levels of work satisfaction. Those who continued also viewed their opportunities for promotion and advancement and the fairness of their pay more highly than did those who left. Persons who continued to work were more satisfied with their relationships with younger co-workers than persons no longer working.

Benefits and transportation do not seem to be have been related to whether persons continued their employment or left employment.

- **Older persons who continued working had significantly higher levels of caregiving responsibilities than did those who left child-care work, but were less likely to have had formal pre-service training than those who left. The two groups were not significantly different in health status.**

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I. INTRODUCTION

Generations Together has successfully completed the AARP-Andrus Foundation-funded research project "A Time Series Study of Factors Associated with Retention and Attrition of Older Adult Child-Care Workers." The study asks:

(1) What work-related and personal factors are associated with the willingness and ability of older adults to remain as child-care workers?

(2) What factors are associated with older persons leaving child-care work?

A five-person project team has carried out the study: Dr. Sally Newman, Principal Investigator; Dr. Rafael Engel, Co-Principal Investigator; Dr. Christopher Ward, Researcher; and graduate student data specialists Emin Karip and Robert Faux (graduate student Linda McWilliams worked on the project in 1992-93). The team has met regularly to discuss progress and to carry out specific tasks such as questionnaire development. The team's report on the results of the study and the implications of these results follows.

II. STATEMENT OF THE PROBLEM

"Wanted, Child-Care Workers Age 55 and Over."

This headline in the New York Times in December, 1987, reflected the growing trend towards viewing older adults as a source of the personnel who are desperately needed in child care. The article that follow said that persons over 65 accounted for 25 percent of the nation's family day care workers, 13 percent of its workers in child care centers, and seven percent of its pre-school teachers (Collins, 1987). Other publications have reported how employing older adults in child care can, as numerous intergenerational child care programs have demonstrated, benefit children, families, and older adults (Seefeldt, 1990).

Increases in older adults seeking employment for the first time and re-entering the work force (AARP, 1991), as well as the growing need for quality child care, mean that adults over 50 can become a major part of the child care labor force in years to come. Such an increase would benefit both older and younger persons (Newman & Riess, 1989).

Work in child care can meet the needs of a growing number of older adults seeking meaningful and rewarding employment, while beginning to meet the need for competent and dependable workers in a field where the pool of workers aged 18-25 is diminishing.

The Federal government has already recognized the potential older adults offer as child care workers as evidenced by the reference to older adults as child care providers in the Child Care Block Grant Act passed in October, 1990. The act allocated funds to improve child care services throughout the United States.

Despite both the importance of child care and the potential availability of a pool of older adult child-care workers, there has been little research on the retention of child-care workers in

general and no studies specific to the retention of older adults in child care. Therefore, this research project explored the following research questions:

(1) What work-related and personal factors are associated with the willingness and ability of older adults to remain as child care workers? and

(2) What factors are associated with older persons leaving child care work?

The project objectives related to these questions were:

(1) Identify older adults' rates of attrition from child-care work;

(2) Identify the demographic variables that describe persons likely to be employed or leave child care;

(3) Identify the work place variables associated with the retention/attrition of older workers in child-care jobs;

(4) Determine the impact of personal or individual variables associated with the retention of older workers in child-care jobs;

(5) Determine the effect of training variables on job retention; and

(6) Determine which variables remain a consideration over the course of time for retention and which are episodic in their influence on retention.

III. LITERATURE REVIEW

A. Why Child Care for Older Adults?

Recent studies indicate that child care offers excellent employment prospects for older adults: the child-care field is growing, the pool of younger workers is diminishing, and child care can provide adults with satisfying experiences. From 1977 to 1985, the number of working mothers placing their children in child-care centers more than doubled (Neugebauer, 1989). Moreover, the demand for child care is expected to increase. By 1995, two-thirds of all pre-school children will have mothers in the work force (Goffin, 1988).

Paralleling this expanding need for child care is a growing shortage of child-care workers. By the late 1980s, staff were leaving their jobs at rates three times higher than they were ten years earlier (Whitebook, Howes & Phillips, 1989). Equally critical, this increasing turnover comes when the U.S. Bureau of Labor reports the pool of young workers, which traditionally supplies most entry-level child-care staff, is shrinking dramatically (Collins, 1987).

The number of older adults employed in child care has been increasing. By 1987, older workers represented 25 percent of family day-care providers, 13 percent of the staff at child-care centers, and seven percent of the staff in preschools (Collins, 1987). This growth parallels trends in the overall labor market where a recent study found in excess of 25 percent of workers who retire take new employment within four years (Myers, 1991). Related studies have found that older adults tend to work in expanding fields such as services, including child care (Freedman, 1990), and that the potential supply of older adult workers is large, with nearly 40 percent of those persons 55 to 64 interested in lengthening their work lives by retraining (Shepphard, 1983).

Child care employment is not only readily available to older adults it is appropriate and fulfilling employment. Intergenerational research has shown that by working in child care, older adults can meet their own needs including the need to nurture and contribute to the growth and development of another generation, as well as the needs of the young (Newman & Riess, 1990).

Older adults and child-care providers are increasingly recognizing child care as a field in which older persons can become trained, competent, and fulfilled employees (Newman, 1989). Research with older adults working in preschool settings, primarily Head Start, suggests that older adults with widely varying skills can find satisfying work opportunities in preschool settings (Tramel-Seck, 1983). Generations Together research has shown that not only does older adults' presence in the classroom positively impact children's classroom behavior and the classroom climate, but that when older adults realize they are having this positive effect, their self-esteem increases (Newman & Riess, 1990).

For older adults, work in child-care provides an opportunity to reaffirm their role as nurturer, to engage in meaningful work, and to gain deep satisfaction in the knowledge that they are contributing to the growth and development of another generation (Newman, 1989). For children in child care, older adults bring a unique combination of skills, life experience, understanding, patience, knowledge, and nurturing that help give young children a sense of security and safety (McDuffie, 1989).

B. Older Adult Worker Job Retention Issues

To date, there appears to have been no published formal studies on older adult child-care job retention. However, in 1991 Generations Together informally surveyed older adults completing training it designed in community colleges in San Francisco, Seattle, and Philadelphia to determine how many persons were still

working 10 months following the completion of the training cycle. Moreover, there have been studies on job retention among older adults who continue to work rather than retire and on child-care employee retention. These studies raise issues that were useful to this research.

Studies on older worker job retention have linked a broad category "job satisfaction" to job retention and have shown that people who express high overall job satisfaction are less likely to resign and are more likely to attend to their jobs, as long as they are physically able to do so. Many job satisfaction factors relate to work: pay, promotion, recognition, benefits, supervision, co-workers, and management (Doering, Rhodes, Schuster, 1983). Other studies have looked at more personal factors to discover, for example, how job satisfaction and retention is associated with life satisfaction, self-confidence, physical health and longevity, and mental health (Locke, 1976).

In other studies on retention, adults 55 and older have named work place factors such as comprehensive health insurance, competitive salaries, generous vacation time, comprehensive retirement plans, and disability insurance (McCool & Stevens, 1990). Other research suggests, but is not conclusive, that pay is less important for older workers than for younger workers (Doering, Rhodes & Schuster, 1983).

In another study, older workers named characteristics such as clean environments, feelings of accomplishment from the job, use of their educational background and experience, job security, work in a position respected by others, and anticipated regular promotion based on merit as important, but did not care about working with other employees their own age or about public transportation to their work place (McCool & Stevens, 1990). Flexibility appears to be an important work-related factor in retention. Many older workers agree that if flexibility were offered in the work place

they could remain as productive contributors (Fyock, 1990). Availability of part-time work is also considered a good way to retain older workers in the labor force (Meier, 1988).

There is increasing evidence that health and physical problems are not major problems for the majority of older adults. For example, Koyl (1983) reports that 90 percent of the people age 60-75 have the necessary physical and mental capacities to stay on the job. At the same time, Generations Together has found that health problems are cited by graduates of its older adult child-care training programs as a reason for not continuing to work. Among many possible demographic or socio-economic factors, level of education (Welford, 1988) is one of the few cited in the literature as having been examined in previous research.

C. Child Care Worker Job Retention Issues

Recent studies of child-care employees have shown the importance of work-related factors, such as low wages, in preventing higher rates of worker retention. Between 40 and 42 percent of child-care workers left the field annually during the 1980s (Hayes, Palmer, & Zaslow, 1990). Low pay, lack of benefits, and stressful working conditions are the major reasons child care workers leave their jobs (Phillips & Whitebook, 1986; Whitebook et al. 1989).

Perhaps the most significant research is the recent Child-Care Employee Project's national child-care staffing study. The study found that child-care providers' low pay is leading to an exodus of child care workers with over 50 percent leaving annually. It calls for higher compensation, better working conditions, and expanded educational opportunities for caregivers (Whitebook et al. 1989). State-wide studies have also focused on poor child-care staff salaries and their relationship to low worker retention (Pennsylvania Legislative Budget and Finance Committee, 1989).

D. Training

Child development and child-care organizations such as the National Association for the Education of Young Children recognize the link between training and the quality of child care (Changing Times, 1988). Some studies suggest that outcomes of training older workers are better than those for training younger workers and that older workers' training performance is better than that of younger workers (Doering, Rhodes & Schuster, 1983). A recent Generations Together study of older workers in child care centers in three cities across the country suggests that a relationship exists between training and job satisfaction (Newman & Riess, 1991). Older workers are more likely than younger workers to remain with their employers once they are trained (Robinson, 1982).

E. Summary

In sum, the literature shows that there is a clear need for older adults in child-care and the field provides the possibility of satisfying employment for older adults. Although there have been no studies specifically examining retention and attrition of older adult child-care employees, research on older workers considering retirement and on child-care workers in general have produced a number of key work place and personal issues that became variables used in this study: wages and benefits, working conditions, transportation, length of employment, job position, demographics, health status, caregiving responsibilities, socioeconomic status, education, and training.

IV. PROCEDURES

A. Research Design

The project used a time series design to follow older adult child-care employees. Subjects completed mailed, written questionnaires at two points in time. Follow-up telephone calls and a second mailing of each questionnaire were made to non-respondents at each data point to increase the response rate.

B. Research Subjects

The subjects for the study were 534 persons 50 years of age and older who were working for pay in child care as direct care providers including aides, assistant teachers, teachers, and directors.

The project team developed the subject pool through three distinct recruitment efforts. As outlined in the proposal, the team first drew upon the older workers who responded (through questionnaires collected by their center directors) to Generations Together's AARP-funded "Older Worker Child-Care Employment Survey" in February 1992. These efforts produced an initial subject pool of 359 older adult child-care workers.

The additional 175 subjects were recruited through contacts with key persons in intergenerational, aging, child care, and older adult employment networks in various areas of the country and from a list of all centers in Pennsylvania known to employ older workers.

C. Variables

The primary dependent variable in this study was whether subjects remained employed in child-care or left child-care

employment. This forms a dichotomous, nominal dependent variable.

The study involves three sets of independent variables:

(1) Demographic variables including age, gender, race, place of residence, education, and income. These variables serve as control variables and provided descriptions of persons likely to be employed or leave child care.

(2) Conditions of employment variables including wages, benefits, working conditions, transportation, perceived status of child care work, length of employment, and job position.

(3) Personal life changes variables which might influence the decision to work in child care including caregiving responsibilities, health status of the worker, and life event changes in the respondent's own life or that of a family member.

D. Instruments

The team used the following project-designed instruments to collect data:

(1) Initial Questionnaire: This instrument collected information on the older adults' current job status, including employment status, wages, benefits, hours, duties, working conditions, transportation to work, and job satisfaction. It also covered demographics, health status, caregiving responsibilities, and life events. The questionnaire consisted of a variety of closed-ended questions (scaled, yes and no, or short answers).

(2) Follow-up Questionnaire: A two-version ("working" and "not working") instrument collected information similar to the initial questionnaire, but was re-worded to update information given in the first questionnaire in the context of the respondent's working or not working.

Both questionnaires were pre-tested with selected subjects from the Pittsburgh area where the subject pool was well-represented. Appropriate cover letters and cover sheets accompanied each questionnaire.

E. Data Collection

Questionnaires were mailed to the 534 subjects between October, 1992 and May, 1993. A second mailing of the questionnaire was followed by telephone calls to those who did not respond to the

first mailing. In all, 341 subjects returned the initial questionnaire, a response rate of 61.9 percent. (See section IX for tables describing the subjects who returned the initial questionnaires.)

In August, 1993, the project team sent to all subjects who returned the initial questionnaire a letter expressing Generations Together's appreciation for their participation in the study. The letter also indicated that within a few months they would be sent the final questionnaire for the study.

On October 20, 1993, the project team mailed to each person who responded to the initial questionnaire a color-coded "working" and "not working" version of the follow-up questionnaire. An accompanying letter explained how to determine which questionnaire to complete.

In mid-November 1993 the project team telephoned those subjects who had not returned the follow-up questionnaire to remind them it was due. A second mailing of the questionnaire went to non-respondents in late November. By mid-December, 282 questionnaires had been returned.

In February, 1994, when the data analysis showed that the attrition rate was low with only 28 of the 282 subjects reporting they were no longer working, the project team called the subjects who had not returned the follow-up questionnaire to ask them if they had stopped working. The team hypothesized that many non-respondents were persons who had left child care during the past year. This turned out not to be the case. Only six of the 40 subjects contacted reported they had left child care during the past year.

F. Data Analysis

When the first returns began in November, 1992, the project team created a coding menu, coded the data, and began entering the data. Coding and data entry were completed for the initial questionnaire in July, 1993, and for the follow-up questionnaire in February, 1994.

In addition to the questionnaire data files, the project team developed, a database with information about the subjects to keep track of the subject pool and to generate mailing labels and telephone lists.

V. RESULTS

We report the research results by the project objectives:

(1) **Identify older adults' rates of attrition from child-care work**

Few of the respondents left paid child-care employment subsequent to the initial questionnaire. Of the 282 respondents at the second time point, only 28, about 10 percent, were no longer employed in a child-care position. The respondents who left gave a variety of reasons for no longer working in child care. Nearly a third (eight) mentioned that health problems led to their leaving child care. In addition, three reported family obligations were the primary reasons, two suggested poor pay, one each noted a better job offer, changed careers, and "the work hours did not fit my schedule." Eleven reported other reasons.

The relatively small number of persons leaving employment precluded using a logistic regression approach in the subsequent analyses. Therefore, the results which follow reflect the bivariate relationship between the independent variables and the dependent variable summarizing the second time point employment status.

(2) **Demographic variables that describe persons likely to be employed or leaving child care**

Demographic differences between persons working at the second time point and persons no longer working in child care at that point are displayed in Table 1. There are only two statistically significant demographic differences between persons who worked throughout and respondents no longer working. There are no differences by race, marital status, living arrangement, or level of education.

The two variables for which there are statistically significant differences are the age of the respondent and the years

employed in child care. Persons who continued to work had an average age of 60, while those no longer working were an average age of 62. Simply speculating on our part, this difference may reflect the tendency for persons to retire and collect Social Security benefits at age 62. The second difference is that persons employed had worked in child care for 12.2 years while those who stopped work averaged only 7.6 years of employment. These averages were taken from the first questionnaire so they are reflective of when both groups were working.

Table 1. Demographic Differences Between Workers and Persons No Longer Working

Variable	Working N	%	Left Work N	%	Chi-Square
Race:					
Person of Color	77	87.5	11	12.5	1.05
White	171	91.4	16	8.6	
Marital Status:					
Married	138	90.2	15	9.8	.03
Single	111	89.5	13	10.5	
Living Arrangement:					
Alone	60	89.6	7	10.4	1.24
Spouse only	101	91.0	9	9.0	
Multigenerational	71	88.8	9	11.3	
Other	16	84.2	3	15.8	
Education:					
High school	118	88.7	15	11.3	1.88
Some college, AA	69	94.5	4	5.5	
BA, BS or post-grad	56	90.3	6	9.7	

	N	Mean	N	Mean	T-value
Age	247	60.1	28	62.2	1.73**
Years employed in Child Care	244	12.21	27	7.59	-2.76*

* $p < .05$
** $p < .10$

(3) **Identify the work place variables associated with the retention/attrition of older workers in child care jobs**

(a) Pay and Benefits

Respondents were asked about actual pay and benefits. Differences between the working and no longer working groups are displayed in Table 2. There is a statistically significant difference between the two groups in the amount of pay reported at the first time point. At Time 1, persons who were still working received an average of $6.73, while persons who would eventually stop working received only $5.46. Similarly, there was a statistically significant difference in last reported hourly wages. For persons leaving work, the final wage averaged $5.22, while for persons remaining in work, the wages averaged $7.14.

There are no statistically significant differences at Time 1 in the number of major benefits or minor benefits reported being received by those working and by those no longer working. Major benefits include paid vacation, paid sick leave, health insurance, dental insurance, life insurance, pension plans, paid holidays and reduced child care-costs. At Time 1, persons who continued to work reported having an average of 3.15 benefits while those persons no longer working had an average of 2.5 benefits. It is important to note that overall, child-care workers received very few major benefits.

Similarly, there were few minor benefits offered to child-care workers. These benefits included such things as free lunch, conference registration fees, overtime, in-service training reimbursement, unpaid time off, and paid staff meetings outside of work. Persons working throughout had an average of 1.9 minor benefits and persons leaving employment reported 1.85 minor benefits.

Table 2. Concrete Benefits and Differences Between Workers and Persons No Longer Working in Child Care

	Working		Left Work		
	N	Mean	N	Mean	T-value
Pay at time 1 of work ($ per hour)	218	6.73	27	5.46	-2.76*
Pay at last time of employment ($ per hour)	221	7.14	27	5.22	-2.56*
Hours working at time 1 (per week)	251	31.29	27	28.34	-1.33
Major benefits	254	3.15	28	2.50	-1.50
Minor benefits	254	1.91	28	1.85	-.17

* $p < .05$
** $p < .10$

(b) Work Environment

Respondents were asked a series of satisfaction and attitude questions about the work environment. Differences in the two groups are displayed in Table 3. One set of questions concerned work satisfaction. Working respondents reported a higher level of work satisfaction at Time 1, (3.75 on a five point scale) than respondents no longer working (3.37). The difference in means is statistically significant and suggests that persons with higher levels of work satisfaction will stay in the work force longer.

Table 3: Work Perceptions and Differences between Workers and Persons No Longer Working in Child Care

	Working		Left Work		
	N	Mean	N	Mean	T-value
Work Satisfaction (average 1 low, 5 high)	252	3.75	28	3.37	-2.84*
Personal Needs met by Child Care (1 low, 5 high)	250	3.57	28	3.77	1.27
Opportunity Perception (1 low, 5 high)	242	2.73	28	2.48	-1.84**
Peer Relationships (1 low, 5 high)	246	4.00	28	3.57	-2.41*
Distance/Travel (1 low, 5 high)	247	4.19	27	4.04	-.81

** $p < .05$
* $p < .10$

Second, there is a statistically significant difference in perceptions about opportunities for promotion and advancement or fairness of pay between the two groups. This scale included questions such as fairness of pay given the nature of the job, the equity of pay relative to co-workers, and opportunities for advancement. Persons working reported a higher level (2.73) for advancement and pay equity than persons no longer working (2.48). In general, the levels reported by both groups reflect a general ambivalence about opportunities and pay. Clearly, the low averages reported suggest that overall there is unhappiness in these two areas.

On the other hand, there is not a statistically significant difference between the two groups about personal satisfaction derived from child-care employment. This scale looked at how

important working in child care was to the respondent in areas such as meeting new friends, contributing to society, getting out of the house, developing new skills, status of the job, and an opportunity to work with kids. Overall, both groups assigned a high level of importance to these areas with persons working reporting a score of 3.57 and persons no longer employed reporting a score of 3.77. This difference was not statistically significant.

There are two particular items of interest: relationships with younger co-workers and concerns about travel. Persons who continued to work were more satisfied with their relationships with younger co-workers (4.00) than persons no longer working (3.57). This factor may be a consideration why some persons leave child-care employment. On the other hand, both groups had no difficulty with transportation and had easy access to their work sites.

(4) **Personal and Individual Variables Associated with the Retention of Older Workers in Child Care**

Table 4 displays care-giving responsibility and physical health status differences between persons working at Time 2 and persons no longer working in child care. There is a statistically significant difference by caregiving responsibilities outside the current child-care job at the time they were first contacted. There was no statistically significant difference by physical health status.

Table 4: Differences Between Working and No Longer Working by Care-giving Responsibilities Outside Their Current Job and by Physical Health Status

Variable	Working N	Working %	Left Work N	Left Work %	Chi-Square
Caregiving Responsibilities					
Yes	73	96.1	3	3.9	3.56**
No	180	88.7	23	11.3	
Physical Health Status					
Excellent	100	93.5	7	6.5	1.51
Good	138	89.0	17	11.0	
Fair	17	89.5	2	10.5	

* $p < .05$
** $p < .10$

(5) **The effect of training variables on job retention**

There is a statistically significant difference between persons who are working and no longer working by formal training in child care prior to starting work in child care. Of persons who kept working in child care throughout the duration of this study 45.3 percent had formal training before starting to work, while 61.5 percent of those who left work had some formal pre-service training. There was no statistically significant difference between the two groups by formal training since starting to work in child care.

Table 5: Differences between working and no longer working persons by formal training before starting to work and by formal training since they started to work

Variable	Working N	Working %	Left Work N	Left Work %	Chi-Square
Formal Training Before Starting to Work					
Yes	115	87.1	17	12.9	3.12**
No	140	93.4	10	6.6	
Formal Training Since Last Questionnaire					
Yes	211	90.9	21	9.1	.54
No	42	87.5	6	12.5	

* $p < .05$
** $p < .10$

Table 6: Formal training before starting to work

Formal Training	N	%
Yes	156	46.3
	181	53.7
Lack of Formal Training		
High School	50	14.7
Job Training Program	39	11.4
Community College	29	8.5
Adult Education Classes	20	5.9
College or University	86	25.2
Other	23	6.7

Table 7: Formal training since starting to work

	N	%
Formal Training		
Yes	280	82.1
No	55	15.1
Type of Training		
In-service (at Work Site)	234	68.6
Professional Workshop (Away from Work Site)	234	68.6
Community College Course Work	74	21.7
Four-year College or University Course Work	29	8.5
Other	47	13.8

VI. DISCUSSION AND IMPLICATIONS

The study produced a number of significant results with important implications for older adults and for child care.

The attrition rate of older adult child-care workers over the year of the study was very low (10 percent) compared to child-care workers in general -- so low, in fact, to preclude certain analysis that required a larger "no longer working" group.

A number of factors may contribute to this low attrition rate. Many older adults find satisfaction and rewards in working. Leaving a job may be the "abnormal" thing to do. Koyl (1983), for example, reported that 90 percent of people age 60-75 who have the necessary physical and mental wherewithal remain working.

The subjects for this study had been working for relatively long periods in child care, many aging on the job. Given this established longevity in their positions as a group, a 10 percent attrition rate in any given year is not particularly surprising. Supporting the idea that those who have been working a long time continue to work is the difference in years worked between the continuing group (12.2 years) and the not continuing group (7.6 years).

Finally, the age of the workers is relatively young. The subject pool included many persons in their 50s with an average age for those retained of about 60. Many subjects may still be moving up the career ladder and not ready to leave their child-care positions. The statistically significant difference in average age between the continuing to work group (60 years of age) and the not continuing group (62 years of age) would seem to support the notion that the relatively young age of the subject pool contributes to low attrition.

The study found that there was a significant difference in pay between the continuing and not continuing to work groups with the continuing to work group earning on average $1.27 more per hour. However, there was not a significant difference in benefits received between the two groups. Low pay has been found to be a reason that persons of all ages leave child care employment (Whitebook et al. 1989; Pennsylvania Budget and Finance Committee, 1989).

We might ask whether the large difference in pay between the continuing and the non-continuing group represents an inequality between various workers at the same level or whether it represents differences in pay level by position with some (higher) positions experiencing less turnover.

In another recent Generations Together retention/attrition study of older persons who were trained and entered the child-care workforce in the last three years we found that there was a significant difference between those continuing and those leaving work for benefits received, but not for pay.

Another noteworthy result of this current study is that working respondents showed a significantly higher level of work satisfaction than did those who left. This finding is not unexpected. Many studies have revealed a relationship between worker satisfaction and job retention (McCool and Stevens, 1990). Similarly, professionals and others in aging and child care, in making recommendations about the productive employment of older adults in child care (Newman, VanderVen, & Ward, 1992), have emphasized the importance that should be placed on work that meets older adults needs and that is carried out in pleasant and appropriate surroundings with proper supervision.

The results of the study also confirm other recent recommendations from the field about the retention of older adults

(See Newman, VanderVen, & Ward, 1992) as well as previous research findings (McCool and Stevens, 1990). The study found that persons who continued working reported a higher level of opportunity for advancement and of pay equity than did those who left employment. These results suggest that older workers will stay committed when they feel their is opportunity for them to grow professionally and when they feel that they are being treating equitably with other workers.

The study reports that persons who continued to work reported a significantly higher satisfaction with their relationship with younger workers than did those who left employment. This finding suggests the importance of reinforcing positive intergenerational relationships and the wisdom of providing orientation and training in intergenerational staff relationships as part of a child-care center's regular procedures.

Finally, the results confirm that getting to work is not an issue for older workers and that, when there, the experience is rewarding for May.

This research provides new information that can benefit various groups:

(1) Policymakers: The data on older workers in child care can be useful for formulating child care staffing, training, and licensing regulations. For example, it establishes the importance of salaries in retaining workers.

(2) Researchers: The study can generate new hypotheses about an understudied group of older adults. We could hypothesize, for example, that level of benefits do not make a difference in retaining workers.

(3) Older adults: The results of the study should help raise understanding of what to expect from continuing or beginning of a career in child care.

(4) Child care field: The study provides information about what factors help retain older adult employees who are committed to working in the field, bringing increased stability and professionalism to the field.

(5) Children: Ultimately, the study will contribute to increasing the number of consistent, stable, and dependable older adult child-care providers who enhance children's social, emotional, and cognitive growth.

(6) Child care centers: The study will help employers recognize the importance of working more effectively and productively with older workers, particularly in designing workplace policies that retain older workers.

VII. PROJECT EVALUATION

Overall, the research project proceeded smoothly. Contributing to this success was a management structure in which principal investigators had wide experience in several related content areas and statistical analysis, the availability of graduate student hourly workers with the necessary skills, and a project researcher to manage the study on a day-to-day basis. However, three problems emerged that are noteworthy.

First, during the initial year of the project period, we encountered some delay in identifying the projected number of participants in the study. In successfully addressing the issue, we learned the following:

- Contacting potential subjects by telephone at home was time-consuming and difficult when they were working in child care. The project team found that evening calling worked well and that weekend calling worked even better.

- People who participated in one survey often did not want to participate in another. While we consider the 359 persons (out of a potential 500) a good participation rate from the earlier AARP survey, we found that some workers and center directors in the earlier AARP study declined to participate or respond to this new research effort. Thus, we sought additional resources to complete the subject pool.

- Generations Together's existing links with persons in child care were vital in finding additional subjects, both through contacting individual child care providers who could link us with employers of older workers, and through the Pennsylvania Association for the Education of Young Children (PAEYC) who provided their salary survey that identified centers employing older adults.

Second, during the first mailing we noted that a specific "return by [date]" in our cover letters was counterproductive because some potential subjects discarded the questionnaire when the date was past due. Therefore, in subsequent cover letters we gave no specific return date, but made follow-up telephone calls several weeks after mailing the questionnaires as a reminder to return them.

A third problem was the extended period of time needed to contact subjects and send out questionnaires. This delayed the development of the follow-up questionnaire and the entry of the first round of data. Given the open period between the administration of the first questionnaire and the follow-up questionnaire we readjusted data entry to July and August and final questionnaire completion to September which enabled us to meet the late October/early November date for the second questionnaire administration.

Our contact with older adult child care workers and the persons who employ them (when we sought subjects) has produced opportunities for occasional testimonials to the value of older adult employees. In one case, an employer, after contacting her to see if she had any older adult care givers, wrote Generations Together to tell about how much she valued her older employee.

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IX. TABLES AND FIGURES

Most of the child care workers returning the initial questionnaire were between age 50 and 65 (78.7 percent).

Table 1. Percentage distribution of older child care workers by age

Age	N	%
50-55	95	28.4
56-60	101	30.2
61-65	67	20.1
66-70	29	8.7
Over 70	42	12.6

The workers responding to this study were overwhelmingly female, 98.5 percent, and of varied ethnic background, white 65.4 percent, black 26.8 percent, and other 7.8 percent.

Table 2. Percent distribution of older child care workers by gender and ethnic origin

Ethnicity	N	(%)
Black	89	26.8
Hispanic	17	5.1
Asian	2	0.6
White	217	65.4
Native American	2	0.6
Other	5	1.5
Gender		
Male	5	1.5
Female	334	98.5

A majority of respondents were married and living with a spouse (52.4 percent), or widowed (25.9 percent).

Table 3. Percent distribution of older child care workers by marital status

Marital status	N	%
Never Married	17	5.1
Married-With Spouse	176	52.4
Married-Spouse Absent	6	1.8
Separated	15	4.5
Divorced	35	10.4
Widowed	87	25.9

About 90 percent of the participants had children and most had two or three children (44 percent).

Table 4. Percent distribution of older child care workers by number of children they have

Number of children	N	%
1	31	9.1
2-3	154	44.0
4-5	81	23.8
More than 5	41	12.0

Those with children in their extended family see their children quite frequently: 46 percent see them daily and 33 percent at least once a week.

Table 5. How often older child care workers see their children

	N	%
Daily	135	45.8
Weekly	97	32.9
Monthly	24	8.1
Yearly	17	5.8
Less than once a year	1	.3
Varies	21	7.1

About 73 percent of the older child care workers reported having grandchildren and 14 percent having great-grandchildren.

Table 6. Percent distribution of older child care workers by number of grandchildren they have

Number of grandchildren	N	%
1-5	161	47.2
6-10	51	15.0
11-15	22	6.5
More than 15	14	4.1

Table 7. Percent distribution of older child care workers by number of great-grandchildren they have

Number of great-grandchildren	N	%
1-2	24	7.0
3-4	12	3.5
5-6	3	.9
More than 6	10	2.9

Most older child care workers were living with their spouse (52.5 percent), with their children (27.8 percent), or were living alone (24.2 percent).

Table 8. Living arrangements

Living with	N	%
Alone	81	24.2
Spouse/partner	176	52.5
Friend	7	2.1
Brother/sister/relative	14	4.2
Parent	10	3.0
Child	93	27.8
Grandchildren	24	7.2
Other	7	2.1

Most of older child care workers reported to have some other sources of income including salary and wages earned by spouse (38.4 percent), social security benefits (37.8 percent), pension benefits (18 percent), and investment or annuities (13.5 percent).

Table 9. Sources of household income other than earnings from current job.

Source	N	%
Salary/wages from spouse	128	38.4
Social security benefits	126	37.8
Pension benefits	60	18.0
Unemployment benefits	8	2.4
Supplemental security income	8	2.4
Food stamps	4	1.2
Veterans' benefits	10	3.0
Investment or annuities	45	13.5
Other	27	8.1

At the time the first questionnaire was administered, the largest groups of older workers in the study were working as assistant teachers (44.4 percent) and teachers (22.2 percent).

Table 10. Percent distribution of older child care workers by position

Position	N	%
Director	41	12.1
Teacher	95	28
Asst. Teacher	83	24.5
Aide	79	23.3
Regular Substitute	7	2.1
Other	34	10

Most of the older workers had a total of five years or less employment in child care at time they completed the first questionnaire (37.8 percent) and about 55 percent had a total of less than 10 years in child care.

Table 11. Distribution of older child care workers by length of employment in child care

Total Years	N	%
5 or Less	124	37.8
6-10	56	17.1
11-15	43	13.1
16-20	37	11.3
21-25	37	11.3
26-30	18	5.5
Over 31	13	4.0

Older child care workers participated in this study have a relatively high education level with 50.8 percent completing some college.

Table 12. Percentage distribution of older child care workers by education

Education	N	%
Some high school	44	13.5
High school or GED	115	35.4
Some college	76	23.4
Assoc. of art	17	5.2
BA or BS	33	10.2
Some graduate work	18	5.5
MA or MS	20	6.2
Ed.D. or Ph.D.	1	.3

The largest number of older workers (47.4 percent) reported working with pre-schoolers.

Table 13. Percentage distribution of older child care workers by age group of children they work with most frequently

Age group of children	N	%
Infants	69	22.1
Toddlers	81	26.0
Pre-schoolers	148	47.4
School-age	14	4.5

Most older child care workers (54 percent) reported working over 30 hours per week.

Table 14. Percentage distribution of older child care workers by total hours worked per week

Hours	N	%
Less than 10	16	4.8
11-20	72	21.4
21-30	70	20.8
31-40	158	47.0
41-50	13	3.9
Over 50	7	2.1

About 18 percent of the retired older child care workers participated in this study returned to work for extra income benefits.

Table 15. Reasons for returning to work for those who were retired

Reason	N	%
Extra Income	60	17.6
Desire to keep working	25	7.3
Interest in children	34	10.0
Enjoy being with people	7	2.1
Keep active	43	12.6
Pass time	6	1.8
Desire to be needed	7	2.1
Make contribution	9	2.6

The survey asked older adults what three things they liked most about working in child care. Benefit to older workers and working with children were their most frequent replies.

Table 16. Things that older child care workers like most about working in child care

	N	%
Like working with children	205	60.1
Social/emotional nurturance	71	20.8
Learning/intellectual nurturance	75	22.0
Benefit to older workers	250	73.3
Activities with/for children	28	8.2

The survey also asked about what things older adults liked least about working in child care. Working conditions were mentioned most frequently. Lack of benefits, poor pay and parent related reasons represent the second grouping of things liked least.

Table 17. Things that older child care workers like least about working in child care

	N	%
Lack of benefits, small pay	107	31.4
Working conditions	146	42.8
Discipline and disruptive children	41	12.0
Children's problems	36	10.6
Other staff/unskilled workers	46	13.5
Lack of facilities/staff	25	7.3
Parent related reasons	77	22.6
Specific tasks	17	5.0
Nothing	33	9.7

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Most older workers reported they are in good or excellent health.

Table 18. Percent distribution of older child care workers by physical health status

Status	N	%
Excellent	131	38.4
Good	184	54.0
Fair	22	6.5
Poor	0	0